



Cognitive Assessment Training 2022

Bonnie Sachs PhD
Wake Forest School of Medicine

Training Resources

- MESA MIND website:
 - Training video with script & scoring answers
 - MOPs
 - CRFs
 - Slide decks
 - VCog materials & attestations
- Other resources:
 - Prior batteries at your site
 - Other examiners at your site
 - Wake Forest staff

Your Role is Important!

- Remember, participants are volunteering their time. They are people - not just data points! Show them your appreciation.
- They will look to you as the expert, so being calm, confident, and prepared will help them feel welcome and relaxed.
- Our team will give you all the necessary tools, skills, practice and support to help you succeed!

The rater's role

To simultaneously develop and maintain rapport with participants, while expertly and accurately administering and scoring cognitive tests...easy right?

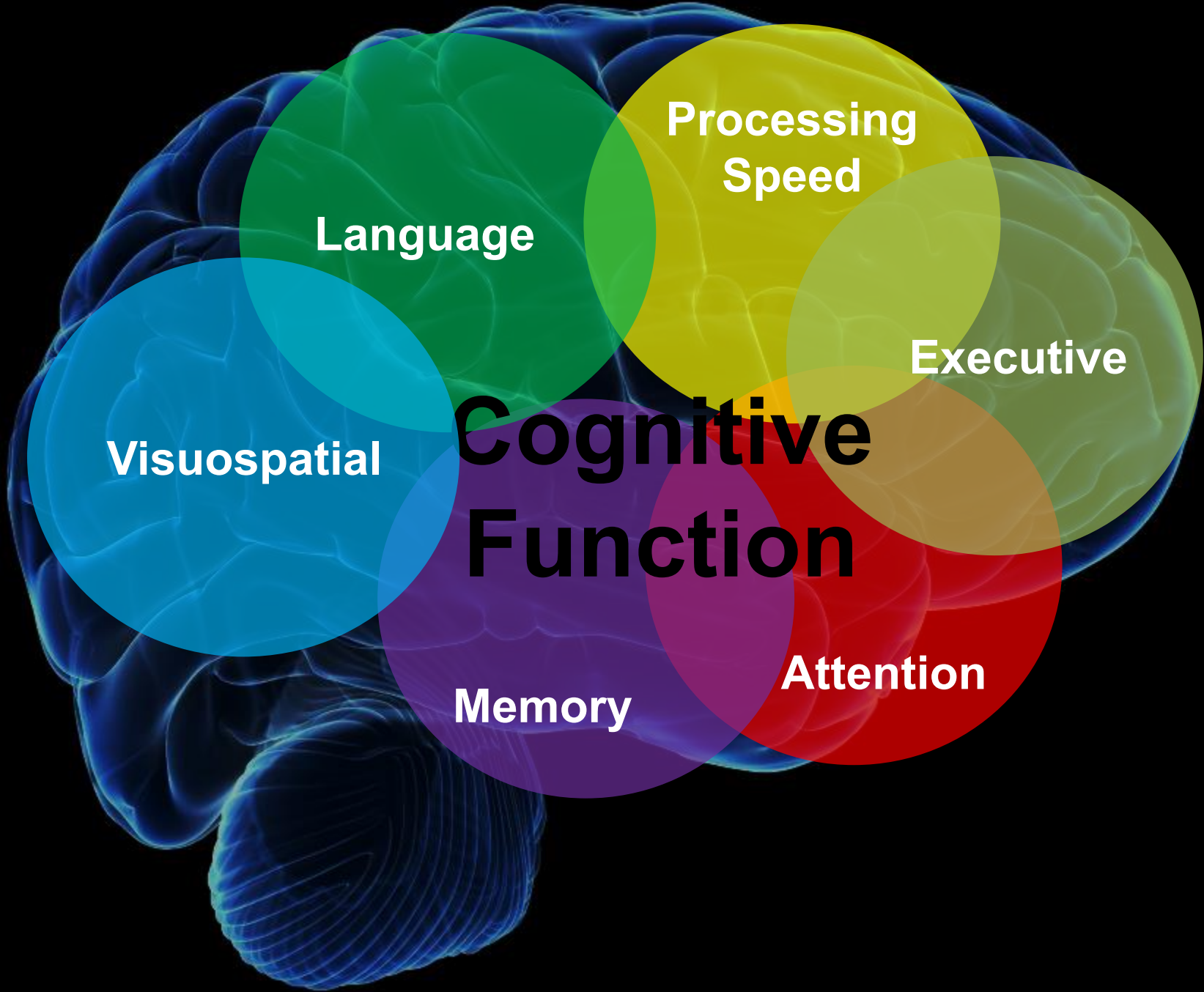
- Introduce yourself and what you will be doing!
- Normalize the process: "Some of the questions may also be very challenging. No one gets everything correct."
- Ask if they have any questions
- Give generic encouragement
- Be warm and sensitive to individual participant's needs
- Administer tests per manual/protocol
- Follow standardized instructions verbatim
- Do not deviate from protocol when administering tests or scoring
- Document all responses verbatim
- Do not give feedback to specific responses
- Administer tests to all participants in the same objective fashion
- Maintain test/protocol security

Your Role

- The gold standard for diagnosing dementia and MCI (research) includes traditional paper-and-pencil cognitive testing.
- Standardized and accurate cognitive test results are how we better understand and help our participants.
- Without that information, or with sub-optimal information, we cannot accurately and confidently adjudicate them



What ARE cognitive
assessments?



Language

Processing
Speed

Executive

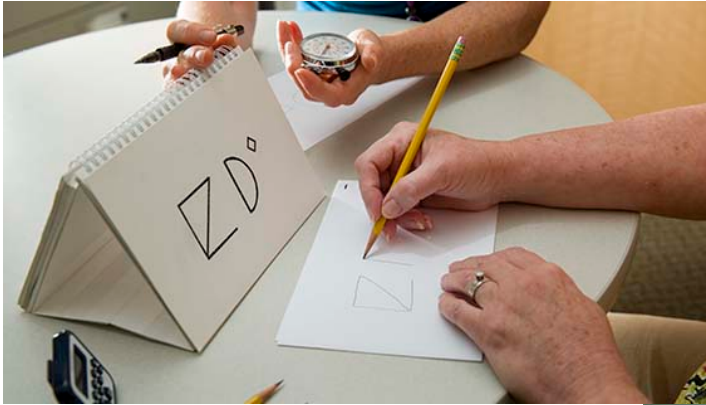
Visuospatial

**Cognitive
Function**

Memory

Attention

How are they conducted?



<https://www.nia.nih.gov/health/assessing-cognitive-impairment-older-patients>

<http://www.sternneurolab.org/neuropsychological-assessments>

<https://www.columbianeurology.org/patient-care/neuropsychology/neuropsychology-treatments-and-services>

<https://www.mountsinai.org/care/behavioral-health/services/neuropsychology/children>

<https://www.mountsinai.org/care/behavioral-health/services/neuropsychology/children>

- Attention/Working Memory: measures attention span and concentration, divided attention, and ability to manipulate information in short-term memory
- Tests: Digit Span, Trail Making Test A
- Motor/Processing Speed: assess for the presence of, and laterality and severity of motor/speed deficits
- Tests: Digit Symbol Coding (DSST/DSC), TMTA
- Executive Function: planning, organization, problem solving, inhibition.
- Tests: MoCA abstraction, Trail Making Test B, DSC
- Visuospatial: object recognition; word recall
- Tests: Benson Figure, MoCA cube & clock,
- Learning & Memory: memory is not a unitary factor, and impairments in certain types of memory may mean very different things and implicate different neural systems.
- AVLT, Craft Story, Benson Figure
- Language: measures expressive communication and aphasia
- Tests: Verbal Fluency (CFL), MINT, Category Fluency (A/F/V)

How are they administered?

Materials Needed

- Cognitive Assessment forms (CRFs) printed from the MESA MIND site
- MOP from MESA MIND website
- Clipboard
- Pens and pencils
- Stopwatch
- Digital audio-recorder
- CASI stimuli
- Blue WRAT-5 Laminated Word Reading stimuli card
- Distraction free-environment

Before you start...

- Prepare the battery
 - Make sure you organize tests, manuals, MOP
 - Gather materials and stimuli needed, etc.
 - Prepare your testing environment (sign on the door; remove miscellaneous items)

Establish rapport

- Always start with an introduction of who you are:
- *“Hi. It’s nice to meet you, my name is XXX. Today, I am going to ask you to complete some memory and thinking tests. Some of the questions I ask you may be very easy and may even sound silly. However, some of the questions may also be very challenging. No one gets everything correct. I can’t give you any specific feedback about how you are doing on these tests. I just want you to do the best you can. Do you have any questions?”*
- Avoid subtle coaching or cheerleading. Give generic encouragement without specifically saying right or wrong
 - “You’re doing just fine.”
 - “Some of these tests are very challenging and some are easier.”
 - “These tasks are designed to be challenging, just do the best you can.”

Standardized data collection & scoring

- Administer all tests in the order in which they are presented
- Provide all instructions to the participant verbatim
- If the participant loses track of the instructions during the task and asks for help, you may repeat the instructions
- You may repeat instructions if participants does not understand
- Every reasonable attempt should be made to administer all performance items and all tests
- Write the participant's responses verbatim, to the extent possible, on the test forms as they are given.
- Audio recording each full test administration is required.

Participant observations

- Remember, participants:
 - are people too
 - they will respond to your emotional state
- If a participant is anxious, or wants to stop:
 - They're volunteers, so we cannot force them to do what they don't want to do.
 - Ask them if they want to take a break, get some water, etc. See if they'll come back to the task
- Make notable behavioral observations, especially if they interfere with validity of testing or responses



- No distractions/empty room
- Clipboard held away from examinee
- Only necessary materials on table
- Professional dress

Tests

Introduction to Testing

Script to begin administration:

"Hi. It's nice to meet you, my name is _____.

Today, I am going to ask you to complete some memory and thinking tests. Some of the questions I ask you may be very easy and may even sound silly. However, some of the questions may also be very challenging. I want you to know that no one gets everything correct. I can't give you any specific feedback about how you are doing on these tests. I just want you to do the best you can. Do you have any questions? (Address any questions)

Okay, I'd like to record what you and I do together. The purpose of this is so I can go back and listen, giving you the most accurate score. Can I begin recording now? (start recorder) Okay, let's begin."

Begin recording, record entire session with each participant, upload recording to MESA MIND.

Neurocognitive Battery Checklist: administration of tests should be in this order

- Quick Dementia Rating System (QDRS)
 - WRAT Word Reading subtest
 - AVLT Word List – Immediate Recall
 - Benson Complex Figure – Copy
 - Number Span
 - Digit Symbol Coding
 - Category Fluency
 - Benson Complex Figure – Delayed Recall and Recognition
 - Trail Making Test
 - Geriatric Depression Scale (GDS)
 - AVLT Word List – Delayed Recall and Recognition
 - Craft Story – Immediate Recall
 - MoCA
 - CASI
 - Craft Story – Delayed Recall
-

QDRS

- 10-question questionnaire given to participant to assess difficulties and changes in cognitive function and daily activities
 - “Semi-structured”
 - You can (and may need to) help participant step through the choices to determine which one best fits their symptoms and changes

QUICK DEMENTIA RATING SYSTEM (QDRS) – Patient Version

1. The following descriptions characterize changes you have noticed in your cognitive and functional abilities. You are asked to compare your abilities now to how they used to be – the key feature is *change*.
2. Check **one answer** for each category that you think best fits you at the present time.

NOTE - not all descriptions need to present to choose an answer.

1. MEMORY AND RECALL	
<input type="checkbox"/> ₀	No obvious memory loss or slight inconsistent forgetfulness that does not interfere with your everyday function
<input type="checkbox"/> _{0.5}	Consistent mild forgetfulness or partial recollection of events that may interfere with performing your everyday activities; repeats questions/statements, misplaces items, forgets appointments
<input type="checkbox"/> ₁	Mild to moderate memory loss; more noticeable for recent events; interferes with performing your everyday activities
<input type="checkbox"/> ₂	Moderate to severe memory loss; only highly learned information remembered; new information rapidly forgotten
<input type="checkbox"/> ₃	Severe memory loss, almost impossible to recall new information; long-term memory may be affected

2. ORIENTATION	
<input type="checkbox"/> ₀	Fully oriented to person, place, and time nearly all the time
<input type="checkbox"/> _{0.5}	Slight difficulty keeping track of time; may forget day or date more frequently than in the past
<input type="checkbox"/> ₁	Mild to moderate difficulty keeping track of time and sequence of events; forgets month or year; oriented to familiar places but gets confused outside of familiar areas; gets lost or wanders
<input type="checkbox"/> ₂	Moderate to severe difficulty, usually disoriented to time and place (familiar and unfamiliar); frequently dwells in past
<input type="checkbox"/> ₃	Only oriented to your name, although may recognize family members

3. DECISION MAKING AND PROBLEM SOLVING ABILITIES	
<input type="checkbox"/> ₀	Solves everyday problems; handles personal business and financial affairs well; decision-making abilities consistent with your past performance
<input type="checkbox"/> _{0.5}	Slight impairment or takes longer to solve problems; trouble with abstract concepts; decisions still sound
<input type="checkbox"/> ₁	Moderate difficulty with handling problems and making decisions; defers many decisions to others; social judgment and behavior may be slightly impaired; loss of insight
<input type="checkbox"/> ₂	Severely impaired in handling problems, making only simple personal decisions; social judgment and behavior often impaired; lacks insight
<input type="checkbox"/> ₃	Unable to make decisions or solve problems; others make nearly all decisions for you

Wide Range Achieve Test (WRAT-5)

- ***“Look at each of these words carefully. Read the words across the page so I can hear you. When you finish the 1st line, go on to the 2nd line and so on down the page until you finish or I tell you to stop. Read the words slowly and clearly”***
 - Discontinue after 5 incorrect responses.
 - If examiner is unsure of word pronunciation, look up the words in an audio dictionary **before** the exam
 - If you don't hear them, or they are speaking too quickly, ask them to repeat/slow down.
 - You can always go back and check your audio recorder
 - Tally points given for correct letters automatically + correct words for total score

RAVLT – Immediate

- A list of 15 words (List A) is read aloud for five consecutive trials and each trial is followed by a free-recall test. The words of List A and List B are presented at the rate of 1-1.5 words per second (use stopwatch).
- After the fifth trial, an interference list of 15 different words (List B) is presented, followed by a free-recall test of that list.
- Immediately afterward, delayed free-recall is of List A is tested (Trial 6; *do not read word list again*).
- **Do not cue** to remember afterwards
- Use a timer to document delay time and record on CRF

Word List A, Trial 1

"I am going to read a list of words. Listen carefully, for when I stop, you are to say back as many as you can remember. It doesn't matter in what order you repeat them. Just try to remember as many as you can"

Read List A, at a rate of one word per second, then record responses

Word List A, Trials 2 - 5

"I am going to read the same list again, and once again when I stop, I want you to tell me as many of the words as you can remember, including words you have said before. It doesn't matter in what order you say them, just say as many words as you can remember, whether or not you said them before."

Repeat "Now I am going to read the same list again..." for Trials 2 through 5 with List A

Word List B

"Now I am going to read a second list of words. This time, again you are to say back as many words of this second list as you can remember. Again, the order in which you say the words does not matter. Just try to remember as many as you can." Read List B. One word per second, record responses.

Trial 6

"Now tell me all the words you remember from the first list." Record responses.

LIST A	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4	TRIAL 5	LIST B	LIST B RECALL	TRIAL 6 (LIST A)	DO NOT REPEAT
DRUM						DESK			DRUM
CURTAIN						RANGER			CURTAIN
BELL						BIRD			BELL
COFFEE						SHOE			COFFEE
SCHOOL						STOVE			SCHOOL
PARENT						MOUNTAIN			PARENT
MOON						GLASSES			MOON
GARDEN						TOWEL			GARDEN
HAT						CLOUD			HAT
FARMER						BOAT			FARMER
NOSE						LAMB			NOSE
TURKEY						GUN			TURKEY
COLOR						PENCIL			COLOR
HOUSE						CHURCH			HOUSE
RIVER						FISH			RIVER
TOTAL RECALL						TOTAL RECALL			
INTRUSIONS						INTRUSIONS			

Do not cue the delayed portion of testing.

Record time administration ended:

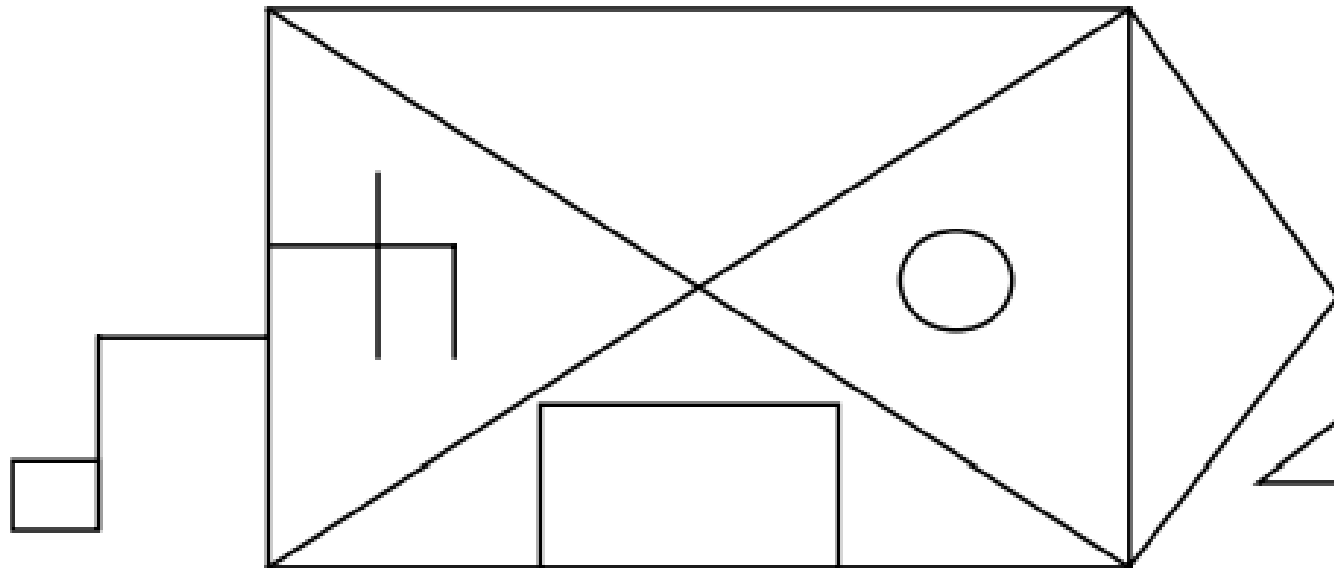
Administer Delayed Recall 20 – 30 minutes later.

RAVLT – Delayed & Recognition

- After a 20 to 30-minute delay, another free-recall and recognition trial is administered.
 - Record the time delayed recall began
 - Ask the participant to recall as many words as they can from the first list.
 - **Do not cue** to remember afterwards
- After the participant has indicated they cannot recall any more words, present the recognition page and ask them to check-off words they recognize from the first list.

Benson Complex Figure Copy & Recall

- ***“Please copy this design as best you can.”***
 - Must use a pen
 - Keep design in horizontal fashion
 - Maximum of 4 minutes allowed
 - When complete, leave the figure in front of the subject for 5 seconds and **cue them** to remember
- After a 10 to 15-minute delay, the participant will be asked to freely recall the design.
- Recognition trial also
- Record stop and start times











Benson Complex Figure: delay

- Delay: 10 – 15 minute
 - Fill delay time with other tests (in order)
 - Maximum of 4 minutes to draw figure
- Recognition:
 - present four items, record response

Benson Complex Figure: scoring

- **MUST score using detailed MOP instructions**
- 2, 1, 0 points per item
 - 2 points: accurately drawn, accurately placed
 - 1 point: accurately drawn, not accurately placed
 - 1 point: not accurately drawn, accurately placed
 - 0 points: not accurately drawn, not accurately placed
- Score leniently for “borderline” responses

Benson Complex Figure Scoring

	1. Four-sided, 90° angles, width > height, any gaps or overlaps < 8mm	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	2. Reasonably straight lines; any gaps or overlaps < 8mm	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	3. Connects at middle third, no overlap with diagonals	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	4. Reasonably round, doesn't touch sides	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	5. Vertical lines > 1/2 distance to diagonals, width > height, 90° angles	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	6. Connects below #3, top of square above bottom	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	7. Vertex corresponds to middle third; any gaps or overlaps < 8mm	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
	8. Gap between #8 and #7 < 5mm, angle at end of stem = 90°	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
BONUS		<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	

ELEMENT 1



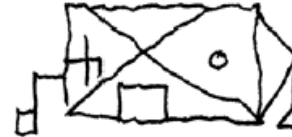
Accuracy: Four reasonably straight sides must be present with 90° angles ($\pm 10^\circ$); width > height; corners do not have to touch and lines can be broken, but gaps or overlaps cannot exceed 8mm.

Placement: Any square-like or rectangular figure is present with at least 3 sides but no more than four sides. Less precise angles are acceptable. Rotation of the entire figure should not exceed 30° . If height is greater than width, this is considered an accuracy failure rather than a rotation-related placement failure.

2-point examples:



Figure is not rotated more than 30° , and gaps at corners and at broken lines do not exceed 8mm.



Leniency is given for wavy lines.

1-point examples:



*Accuracy: 0 Placement: 1
Bottom left angle is not precise.*



Accuracy: 0 Placement: 1

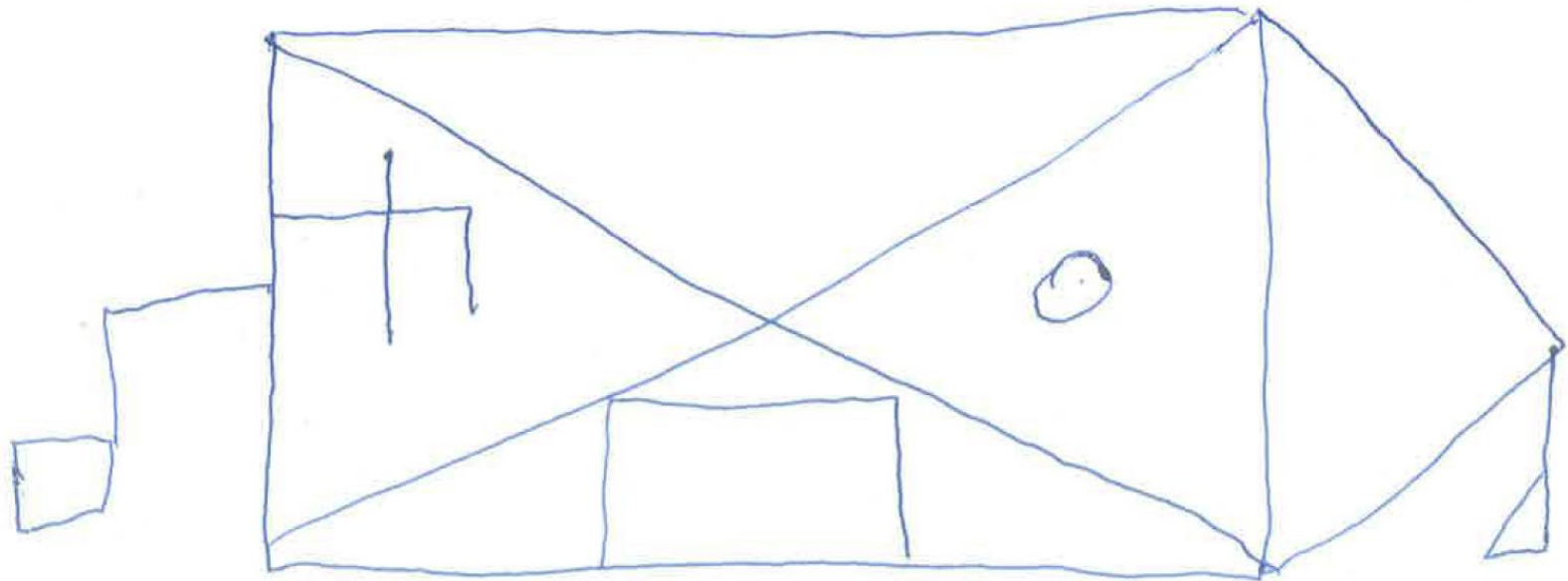


*Accuracy: 0 Placement: 1
Three sides of the rectangle are present, and element bears enough of a resemblance to the target element to receive placement credit.*











*Accuracy: 1 Placement: 0
Placement credit is lost due to rotation.*

0-point examples: pentagon, circle, triangle



Benson Complex Figure Scoring

	1. Four-sided, 90° angles, width > height, any gaps or overlaps < 8mm	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	2. Reasonably straight lines; any gaps or overlaps < 8mm	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	3. Connects at middle third, no overlap with diagonals	<input type="checkbox"/> 0	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2
	4. Reasonably round, doesn't touch sides	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	5. Vertical lines > 1/2 distance to diagonals, width > height, 90° angles	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	6. Connects below #3, top of square above bottom	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	7. Vertex corresponds to middle third; any gaps or overlaps < 8mm	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
	8. Gap between #8 and #7 < 5mm, angle at end of stem = 90°	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
BONUS		<input checked="" type="checkbox"/> 0	<input type="checkbox"/> 1	

Number Span

- Test of working memory
- Administration time: approximately 5 minutes
- Administration pointers:
 - Read the numbers at an even rate, 1 per second
 - Use your stopwatch to keep pace
 - Can cue for on Trial 2a or 2b for backwards span only
 - Discontinue after two failed trails in the same set

Forward Number Span

- Say: ***“I am going to ask you to repeat some numbers for me. Wait until I finish saying the numbers and then repeat them in the same order. For example, if I say 1-8-7, you would say 1-8-7. If I say 2-9-8, what would you say?”***
If the participant gives the wrong answer, say, ***“Actually you would say 2-9-8.”***
- Say: ***“Repeat only the numbers I say each time.”*** Then start with the test items. Before each item say, ***“Ready?”***
 - Administer the items in the order indicated on the test form. Record the participant’s responses. Continue testing until two number strings at the same length are failed. Record total number of trials correct and longest number sequence repeated correctly prior to the two failed trials.

Backwards Number Span

- Say: ***“I am now going to ask you to repeat some numbers for me but to reverse them from the way I saw them. Wait until I finish saying the numbers and then repeat them in reverse order, or backward. For example, if I say 3-7-4, you would say 4-7-3. If I say 7-3-6, what would you say?”***
 - If the participant gives the wrong answer, say, ***“Actually, you would say 6-3-7.”***
- Say: ***“Repeat only the numbers I say each time, backward, in reverse order.”*** Then start with the test items. Before each item, say, ***“Ready?”***
- ***If the participant repeats the numbers in the forward order on either of the first two test items, you may remind them to say the numbers in reverse order by saying, “Remember, after I say the number sequence, repeat the sequence backwards. Ready?” Do not give them the number sequence again. Score the item as incorrect***

Number Span: scoring

- Total Correct
 - Sum of all correct responses

- Length of longest span
 - The length of the longest correct span

Digit Symbol Coding (DSC)

- Measure of processing speed
- Administration time: 2 minutes (120 seconds)
- **Administration practice:** *“Look at these boxes. Notice that each has a number in the upper part and a special mark in the lower part. Each number has its own mark. Now look down here where the squares have numbers in the top part but the squares at the bottom are empty. In each of the empty squares, put the mark that should go there. Like this. Here is a 2; the 2 has this mark. So I put it in this empty square, like this. After marking the first three Sample Items, say: “Now fill in the squares up to this heavy line.”*
- **Administration:** *“Begin here and fill as many squares as you can, one after the other without skipping any. Keep working until I tell you to stop. Work as quickly as you can without making any mistakes.”*
- Pointers:
 - Don’t forget about the timer!
 - If the participant starts on a row in the opposite direction (right to left), allow them to finish, then re-orientate them to the left to right flow.
 - Watch to ensure participants does not skip around (do all 2’s first, for example)

Category Fluency

- Semantic memory and language test
- Animals and Vegetables
- Administration time: less than, or approximately, 5 minutes.
- Administration Sample:
 - ***I am going to give you a category and I want you to name, as fast as you can, all of the things that belong in that category. For example, if I say ‘articles of clothing’, you could say ‘shirt’, ‘tie’, or ‘hat’. Can you think of other articles of clothing?***

Response	Instruction
(No response)	“You could have said ‘shoes’ or ‘coat’ since they are articles of clothing.”
(One or more incorrect responses, no correct response)	“No, ___ is (are) not an article(s) of clothing. You could have said ‘shoes’ or ‘coat’ since they are articles of clothing.”
(One or more correct response, no incorrect responses)	“That’s right. You also could have said ‘shoes’ or ‘coat’.”
(One or more correct responses, one or more incorrect responses)	“___ is (are) correct, but ___ is (are) not an article of clothing. You also could have said ‘shoes’ or ‘coat’.”
(Two or more correct responses)	“That’s right.”

Category Fluency

- *“Now I want you to name things that belong to another category: **Animals**. You will have one minute. I want you to tell me all the animals you can think of in one minute. Ready? Begin.”*
- Stop the procedure at one minute (60 seconds).
 - One prompt (**“Tell me all the animals you can think of”**) is permitted if the participant makes no response for 15 seconds or expresses incapacity (e.g., “I can’t think of any more.”). It is also permissible to repeat the instruction or category if the participant specifically requests it.
 - Do not cue the participant about including more than mammals. However, if the participant inquires prior to initiating the response or asks during the test, you are permitted to say “yes.”
- Repeat same procedures for Vegetables.

Category Fluency: scoring

- Scoring can be complex; verify words using “dictionary” if unfamiliar
- **Always refer to manual when scoring**
- Discuss ambiguous/confusing answers with PI or Neuropsychologist
 - Animals:
 - Credit: Horses, Tennessee Walkers, Mares, Stallions, Colts
 - No credit: Unicorns
 - Vegetables:
 - Credit: Beans, Pinto Beans, Lima Beans, Black Beans
 - No credit: Pears, Salads, Ketchup, Salt

Example:

Horse

Mare

Cat

Kitten (infant forms ok)

Dog

Skunk

Human

Bigfoot (X – not real animal)

T-Rex

Gerbil

Hamster

Monkey

Gorilla

Bird

Blue jay (Subordinate/subtypes ok)

Cardinal

Verbal Fluency

- **Administration: Letter F**
- ***Say: “I’m going to say a letter of the alphabet. When I ask you to start, tell me as many words as you can that begin with that letter. You will have 1 minute before I tell you to stop. None of the words can be numbers or names of people, or places.***
- ***“For example, if I gave you the letter B, you could say brown, bottle or bake, but you wouldn’t say Barbara, Boston or billion. Also, please try not to give me the same word with different endings, so if you said bake, you wouldn’t also say baked or bakes, and if you said big, you wouldn’t also say bigger and biggest.***
- ***“Let’s begin. Tell me all the words you can, as quickly as you can, that begin with the letter ‘F’. Ready? Begin.”***
 - Start timer after completing instructions. Record all responses. Stop the procedure at one minute (60 seconds).

Verbal Fluency

- **PROMPTS:**
 - If the participant pauses for 15 seconds say:
 - “Keep going.”
 - “What other words beginning with “F” can you think of?”
 - If the participant gives three consecutive words that do not start with the designated letter (provide this prompt only once during this condition):
 - “We are now using the letter F.”
- **Then repeat procedure for letter L**

Verbal Fluency Scoring

- Example:

fun

finger

flip

flippant

fortune

fun (Repetition)

fund

frank

France(X - name)

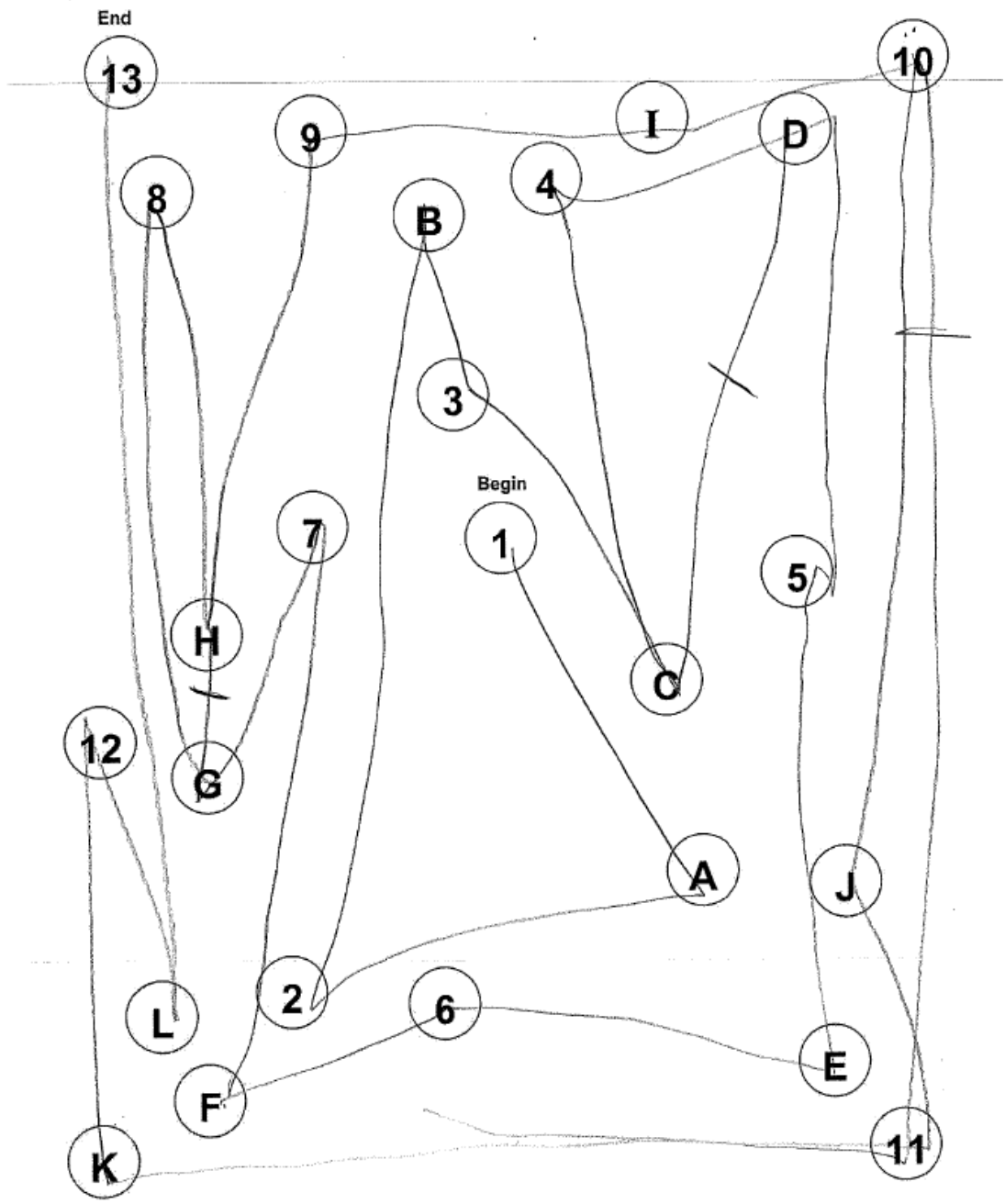
Philly (Intrusion – word that does not start with F)

Trail Making Test (TMT)

- A test to measure processing speed and executive function
- Administration time: Depends on the speed of the ppt.
 - Discontinue Trails A at 150 seconds (always write in seconds)
 - Discontinue Trails B at 300 seconds (always write in seconds)
- Administration pointers:
 - Some ppts get antsy and try to start early. Don't hand them the pencil until they are ready to begin.
 - Remind them you have to read all instructions, if necessary
 - **Be attentive while they draw**
 - Watch out for impulsive errors on Trails A and B
 - Correct errors immediately, per instructions

TMT: scoring

- The number of seconds completed is scored
- Errors are recorded
 - “Errors of commission” – “...any connecting line drawn by the subject that elicits a correction from the examiner is an error of commission.”
 - “Number of correct lines” – “total of correct connections between circles”
 - Maximum = 24 lines
 - Scores less than 24 will happen when the ppt is slow and doesn't complete TMT in time



Geriatric Depression Scale (GDS)

- Depression scale
- Administration pointers:
 - Be polite, don't rush through sensitive questions
 - If a ppt endorses > 8 items, or says they feel hopeless/having thoughts of death, etc., follow HIGH GDS alert procedure

High GDS Alert Protocol

- Participant ID: _____ Date and time of testing: _____
- Interviewer: _____ GDS Score: _____
- Date and time PI notified: _____
- Date clinician made contact with participant: _____
- This protocol is for certified interviewers when they suspect or detect significant emotional distress consistent with depression with or without suicidal ideation. ‘Significant emotional distress’ is suggested by a score on the Geriatric Depression Scale-Short Form >8 OR by any of the responses during the encounter that suggest significant emotional distress such as statements regarding suicide, hopelessness, or lasting depressed mood. If GDS >8 or if you suspect the participant is significantly distressed, then say:
 - ***Your response to some of the questions suggests to me that you might be experiencing some significant emotional distress or depression at this time. We recommend you speak with someone you feel comfortable talking to, such as a family member, your physician, a counselor, or clergy.***
- *Notify the designated study clinician and PI immediately, inform him/her of the participant’s status, and review the information with him/her. The study clinician will contact the participant by phone, or speak with them in person if the circumstances allow, and follow up with an email to the interviewer detailing their impressions and recommendations. Record all pertinent information below and save a copy of all emails related to this event.
- Outcome/Follow-up comments:

Craft Story

- Verbal memory; recall of a short story
 - Immediate Recall and Delay Recall
- Administration time: approx. 5 – 10 minutes, 20 minute delay
- Administration pointers:
 - Read story with a clear voice, annunciating
 - Read at slightly slower than normal pace
 - **Cannot** repeat story
 - Write the ppt's response verbatim
 - Always use a recorder as well for accuracy and scoring later
 - **Cue** them that you will ask them about the story later
 - Record the time

Craft Story

- Say: ***“I am going to read you a story. Listen carefully, and when I am through, I want you to tell me everything you can remember. Try to use the same words I use but you may also use your own words. Are you ready? The story is...”***
 - ***Read the story clearly and loudly with usual cadence, but in a slightly slower than normal pace.***
- As soon as the story is over, give the recall instruction:
- Say: ***“Now tell me the story I just told you. Try to remember as much as you can.”***
 - *Note time that administration ends*
- ***“Later on, I will ask you to tell me this story again, so try not to forget it.”***

Maria's / child / Ricky / played / soccer / every Monday / at 3:30 / He liked going to the field / behind their house /
and joining / the game. / One day, / he kicked / the ball / so hard / that it went over / the neighbor's / fence /
where three / large dogs lived. / The dogs' owner / heard loud barking, / came out, / and helped them /
retrieve the ball.

Craft Story: delay recall

- 20 minute delay:
 - Use other tests to fill the time in the delay as specified per protocol
 - If you have a minute or two left, and not enough time to complete another test, just make small talk.
- If the ppt doesn't remember the story, give them the cue provided and note so.
- No other information can be provided as cue

Craft Story: scoring

- Verbatim and Paraphrase are scored independent of each other
- Verbatim scoring
 - 44 “bits”
 - 1 point for every word, or “bit,” that are recalled exactly and completely.
 - Exceptions:
 - » Variations of verbs (e.g., “kicking” for “kicked,” “join” for “joining”)
 - » Minor omissions (e.g., “dog” for “dogs)
 - » Changes in numbers (e.g., “games” for “game”)
 - Be mindful of repeated “bits”
 - “He,” “dog,” and “ball” are on the list twice
 - Context doesn’t matter, as long as they use the word

Craft Story: scoring

- Paraphrase scoring
 - 1 point for “captures the elements of the story although not the exact words.”
 - Be mindful of alternative 1-point responses
 - E.g., Mary and Marie, instead of Maria
 - Futbol for soccer
 - Familiarize yourself with the general rules, alternative responses, and 0-point responses
 - Score after the fact using your recording to transcribe

Verbatim Scoring

Maria's	
child	
Ricky	
played	
soccer	
every	
Monday	
three thirty	
he	
liked	
going	
field	
behind	
their	
house	
joining	
game	
one	
day	
he	
kicked	
ball	
so	

hard	
it	
went	
over	
neighbor's	
fence	
three	
large	
dogs	
lived	
dogs'	
owner	
heard	
loud	
barking	
came	
out	
helped	
them	
retrieve	
ball	
TOTAL	

SCORING

Number of items recalled for verbatim scoring: Immediate Recall Score: _____ /44 maximum

Paraphrase Scoring

Item	General rule	Alternative 1-point responses	0-point responses	Points
Maria's	"Maria" or a variant of the name	Mary, Marie	Martha, Anna	
child	"child" or a phrase denoting it was a young person	son, kid, boy, teenager, young man	guy, children, daughter	
Ricky	"Ricky" or a variant of the name	Rick, Rich, Richie, Richard, Ricardo	Randy, Rusty, Robert	
played	"played" is required	to play, plays	did (soccer)	
soccer	"soccer" is required	futbol	baseball, volleyball, other sport	
every Monday	"Monday" or an indication that it occurred on a weekday		every day, another day of the week	
at 3:30	an indication that the activity took place in the afternoon	after school, every afternoon	after dinner, at night, in the morning	
He liked going to the field	an indication that he went to an outdoor area	went outside, went to the yard, going to the backyard	went to the school, gm	
behind their house	"house" or word denoting a house	home, residence, where they lived	any other building	
and joining	an indication that he participated in a game	played w/ other kids, became part of the team, playing w/ the team	watching, played in the park	
the game.	"game" in any context			
One day	"One day" is required			
he kicked	indication that he performed the activity with his foot	booted, punted	threw, hit (with no mention of the foot)	
the ball	"Ball" is required	football, soccer ball	baseball, volleyball	
so hard	an indication that force was used	so much force, so strongly, (kicked it) so far		
that it went over	"Over" is required			
the neighbor's	an indication that the person lived in the same area	nearby resident	friend's	
fence	"fence" or a word denoting a fence of some kind	garden wall, wall	property line, street	
where three	"Three" is required	three (boys)		
large dogs lived.	an indication that there were dogs present	hounds, doggies	puppies, cats, kittens, other animals	
The dogs' owner	an indication that the person was responsible for the dogs	neighbor (if owner implied and "neighbor" mentioned twice)	a bystander, the police	
heard loud barking	an indication that the dogs were making noise	yelping, baying, yapping, heard the dogs	saw the run ning around	
came out	a word or phrase indicating that the owner was present	(owner) saw the ball	his mother came out, the dogs came out	
and helped them	a word or phrase indicating that help was provided	assisted, aided, had to help		
retrieve the ball.	an indication that they got the ball back	gave him the ball, return the ball, (helped him) get the ball —		

- Maria's son Ritchie liked to play soccer every day outside in his backyard. He kicked his ball really hard and it went into his neighbor's back yard, who had 3 large hound dogs. The neighbor heard his dogs barking so he came outside and gave the boy his ball back.

- Verbatim:

- Paraphrase:

Verbatim sample

- Maria's** son **Ritchie** **liked** to **play/ soccer /every** day outside in his backyard. **He /kicked** his **ball /so /hard** and it **/went** into his **neighbor's** back yard, who had **3 /large /hound dogs**. The **neighbor /heard** his **dogs /barking/ so /he /came /out** and gave the boy his **ball** back.

– Verbatim:25

Maria's	
child	
Ricky	
played	
soccer	
every	
Monday	
three thirty	
he	
liked	
going	
field	
behind	
their	
house	
joining	
game	
one	
day	
he	
kicked	
ball	
so	

hard	
it	
went	
over	
neighbor's	
fence	
three	
large	
dogs	
lived	
dogs'	
owner	
heard	
loud	
barking	
came	
out	
helped	
them	
retrieve	
ball	
TOTAL	

SCORING

Number of items recalled for verbatim scoring: Immediate Recall Score: _____ /44 maximum

Paraphrase sample

- Maria's /son /Ritchie liked to play /soccer every day outside in his backyard. He kicked / his ball/ really hard and it went into his neighbor's back yard, who had 3/ large hound dogs. The neighbor /heard his dogs barking so he came outside and gave the boy his ball back.
- Paraphrase: 16

Item	General rule	Alternative 1-point responses	0-point responses	Points
Maria's	"Maria" or a variant of the name	Mary, Marie	Martha, Anna	
child	"child" or a phrase denoting it was a young person	son, kid, boy, teenager, young man	guy, children, daughter	
Ricky	"Ricky" or a variant of the name	Rick, Rich, Richie, Richard, Ricardo	Randy, Rusty, Robert	
played	"played" is required	to play, plays	did (soccer)	
soccer	"soccer" is required	futbol	baseball, volleyball, other sport	
every Monday	"Monday" or an indication that it occurred on a weekday		every day, another day of the week	
at 3:30	an indication that the activity took place in the afternoon	after school, every afternoon	after dinner, at night, in the morning	
He liked going to the field behind their house	an indication that he went to an outdoor area	went outside, went to the yard, going to the backyard	went to the school, gm	
and joining the game.	"house" or word denoting a house	home, residence, where they lived	any other building	
One day	an indication that he participated in a game	played w/ other kids, became part of the team, playing w/ the team	watching, played in the park	
he kicked the ball	"game" in any context			
so hard	"One day" is required			
that it went over the neighbor's fence	indication that he performed the activity with his foot	booted, punted	threw, hit (with no mention of the foot)	
where three large dogs lived.	"Ball" is required	football, soccer ball	baseball, volleyball	
The dogs' owner heard loud barking	an indication that force was used	so much force, so strongly, (kicked it) so far		
came out and helped them retrieve the ball.	"Over" is required			
	an indication that the person lived in the same area	nearby resident	friend's	
	"fence" or a word denoting a fence of some kind	garden wall, wall	property line, street	
	"Three" is required	three (boys)		
	an indication that there were dogs present	hounds, doggies	puppies, cats, kittens, other animals	
	an indication that the person was responsible for the dogs	neighbor (if owner implied and "neighbor" mentioned twice)	a bystander, the police	
	an indication that the dogs were making noise	yelping, baying, yapping, heard the dogs	saw the run ning around	
	a word or phrase indicating that the owner was present	(owner) saw the ball	his mother came out, the dogs came out	
	a word or phrase indicating that help was provided	assisted, aided, had to help		
	an indication that they got the ball back	gave him the ball, return the ball, (helped him) get the ball —		

Montreal Cognitive Assessment (MoCA)

- Brief cognitive screening instrument
- Administration time: 10 minutes
- Administration pointers:
 - Read the numbers, letters, and words at the rate of once per second.
 - Record all responses on CRF

- Trails – give the ppt credit if they start at 2 and complete the pattern correctly
- Cube – all lines present, parallel
- Clock – roughly a circle, all the numbers, and hands are more-or-less centered and the hour hand is shorter than the minute hand.
- Naming
 - Rhino and Rhinoceros, Camel and Dromedary receive credit
- Serial 7's
 - If the ppt gives an incorrect answer, but then correctly subtracts seven, then they receive credit:
 - 93 (✓), 87 (X), 80 (✓),

VISUOSPATIAL / EXECUTIVE		Copy cube	Draw CLOCK (Ten past eleven) (3 points)	POINTS									
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
NAMING													
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
MEMORY	Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.	FACE	VELVET	CHURCH	DAISY	RED	No points						
	1st trial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
	2nd trial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
ATTENTION	Read list of digits (1 digit/ sec.).	Subject has to repeat them in the forward order		<input type="checkbox"/>	2	1	8	5	4				
		Subject has to repeat them in the backward order		<input type="checkbox"/>	7	4	2	<input type="checkbox"/>					
	Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors	<input type="checkbox"/> F B A C M N A A J K L B A F A K D E A A A J A M O F A A B											
	Serial 7 subtraction starting at 100	<input type="checkbox"/>	93	<input type="checkbox"/>	86	<input type="checkbox"/>	79	<input type="checkbox"/>	72	<input type="checkbox"/>	65	<input type="checkbox"/>	
	4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt	<input type="checkbox"/>											
LANGUAGE	Repeat: I only know that John is the one to help today. <input type="checkbox"/>												
	The cat always hid under the couch when dogs were in the room. <input type="checkbox"/>												
	Fluency / Name maximum number of words in one minute that begin with the letter F <input type="checkbox"/> _____ (N ≥ 11 words)												
ABSTRACTION	Similarity between e.g. banana - orange = fruit <input type="checkbox"/> train - bicycle <input type="checkbox"/> watch - ruler <input type="checkbox"/>												
DELAYED RECALL	Has to recall words WITH NO CUE	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only						
	Category cue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Optional	Multiple choice cue												
ORIENTATION	<input type="checkbox"/>	Date	<input type="checkbox"/>	Month	<input type="checkbox"/>	Year	<input type="checkbox"/>	Day	<input type="checkbox"/>	Place	<input type="checkbox"/>	City	
© Z.Nasreddine MD www.mocatest.org Normal ≥ 26 / 30 TOTAL <input type="checkbox"/> /30													
Administered by: _____ Add 1 point if ≤ 12 yr edu													

MoCA : scoring

- Similarities: abstract commonalities vs. concrete examples
 - Train – Bicycle
 - Credit: Modes of transportation, traveling, you take trips in them
 - No credit: They have wheels, you ride them
 - Watch – Ruler
 - Credit: Measures, measuring instruments
 - No credit: They have numbers; a watch tells the time and the ruler tells how long something is.
- Delayed Recall
 - Give Category Cue for words not recalled
 - if they get that wrong, give the multiple choice

Cognitive Abilities Screening Instrument (CASI)

- Global cognitive function, like the MoCA
 - Orientation questions, common knowledge, reasoning, mental subtraction, memory recall, working memory, language (naming, comprehension & repetition), writing/drawing
- Administration time: 10 – 15 minutes
- Some items are scored differently than previous portions of the MESA exam (Animal fluency)

6. I am going to say 3 words for you to remember. Repeat them after I have said all three.

	Correct	Error / Refused	Not Att / Disabled
Shoes:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blue:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Charity:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NOTE: If participant can't answer the first time, say "the three words are shoes, blue and charity".

If he/she still cannot answer, say "Let me say the three words again. They are... SHOES - something to wear, BLUE - a color, and CHARITY - a good personal quality. Now say the three words again."

Score last performance.

7. I shall say some numbers, and you repeat what I say backwards. For example, if I say 1-2, you say 2-1. OK? Remember, you repeat what I say backwards.

	Correct	Error / Refused	Not Att / Disabled
a. 1-2-3 (If unable, coach for 3-2-1, but score 0)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. 6-8-2 (If score is 0 in both A and B, score C 0)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. 3-5-2-9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. What three words did I ask you to remember earlier?

a. Shoes

- Spontaneous recall
- After: "One word was something to wear"
- After: "Was it shoes, shirt, or socks?"
- Still incorrect
- Not attempted / disabled

b. Blue

- Spontaneous recall
- After: "One word was a color"
- After: "Was it blue, black, or brown?"
- Still incorrect
- Not attempted / disabled

c. Charity

- Spontaneous recall
- After: "One word was a good personal quality"
- After: "Was it honesty, charity, or modesty?"
- Still incorrect
- Not attempted / disabled

NOTE: Unless recall is perfect, give another reminder of the 3 words.



"Next I'm going to ask you to do some mental subtraction."

NOTE: For the first error only, score 0, but provide the correct answer. If subject asks examiner to repeat answer from previous step, provide the answer but score 0 at that step. Discontinue after 2 consecutive 0's for any reason and score the remaining steps as 0.

		Correct	Error / Refused	Not Att / Disabled
9a. From 100, take away 3 equals how many?	(97) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9b. And take away 3 from that equals? (If A and B are both scored 0, score C 0)	(94) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9c. Repeat "And take away 3 again equals?" (ask 3 more times)	(91) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	(88) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	(85) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ending the Session

- Thank the participant for their time!
- Be gracious and appreciative
- Answer any questions
- If anxious/worried about, provide gentle reassurance without giving specific feedback

Resources and Procedures

Training Resources

- MESA MIND website:
 - Training video with script & scoring answers
 - MOPs
 - CRFs
 - Slide decks
 - Vcog materials & attestations
- Other resources:
 - Prior batteries at your site
 - Other examiners at your site
 - Wake Forest staff

Exam Component	Requirements	Additional Details
<p>Cognitive Assessment recertification for existing staff</p>	<ol style="list-style-type: none"> 1. Submit the scanned CRFs and audio file from a recorded battery for re-certification on a participant tested within the last three months. If staff have not been actively testing participants within the past 3 months, they may submit a scored practice battery administered to another staff member. These practice batteries will use pre-specified forms (Contact Ashley Morgan for these). 2. If not already completed, certify on VCog 3. Review new materials posted to the webpage 4. Attend live training. 	<ol style="list-style-type: none"> 1. Certification will be performed neuropsychologists & staff at Wake Forest. Feedback will be provided on a certification feedback form provided directly to staff and the site project manager and PI. 2. All certification will be completed using the in person, English battery 3. Raters who exclusively or near-exclusively test in non-English language will have a different process involving Dr. Clara Li or Spanish-speaking staff at Columbia University. 4. Site should maintain new examiner checklist/training log. Completed items and logs will be sent to Ashley Morgan. armorgan@wakehealth.edu 5. Staff will be recertified annually. Emails will be sent to staff, project managers, and site PI's 60 days in advance about staff recertification.

Cognitive Assessment certification for **new staff**

1. Review all training materials online (video recorded battery, test-specific materials).
2. Review MOP and battery CRFs.
3. Observe trained staff administering battery if possible, otherwise, review older recorded batteries at your site.
4. Attend virtual training session
5. Administer **2** practice batteries to a volunteer.
6. Submit audio and CRFs from **1** recorded battery for certification. These practice batteries will use pre-specified forms (contact Ashley Morgan).
7. Submit first **2** participant batteries for audit (within 1 week of administration).

1. Certification will be performed by NPs or trained WF staff. Feedback will be provided on a certification feedback form which will be provided directly to staff, as well as site project manager and PI.
2. All certification will be completed using the in person, English battery
3. Raters who exclusively or near-exclusively test in non-English language will have a different process involving Dr. Clara Li or Spanish-speaking staff at Columbia University.
4. Site should maintain new examiner checklist/training log. Completed items and logs should be sent to Ashley Morgan.
armorgan@wakehealth.edu
5. Staff will be recertified annually.
6. If audits reveal scoring and/or administration errors, staff may receive additional remediation or may need to temporarily cease testing until errors are addressed.

Module B: Proxy Forms

Proxy Questionnaires

- Functional Assessment Scale/Questionnaire
- NPI-Q
- QDRS- proxy version

FAQ

<i>In the past four weeks, did the subject have difficulty or need help with:</i>	Not applicable (e.g., never did)	Normal	Has difficulty, but does by self	Requires assistance	Dependent	Unknown
1. Writing checks, paying bills, or balancing a checkbook	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
2. Assembling tax records, business affairs, or other papers	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
3. Shopping alone for clothes, household necessities, or groceries	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
4. Playing a game of skill such as bridge or chess, working on a hobby	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
5. Heating water, making a cup of coffee, turning off the stove	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
6. Preparing a balanced meal	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
7. Keeping track of current events	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
8. Paying attention to and understanding a TV program, book, or magazine	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
9. Remembering appointments, family occasions, holidays, medications	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
10. Traveling out of the neighborhood, driving, or arranging to take public transportation	<input type="checkbox"/> 8	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9

*Clarify for proxy that these questions are relevant to cognitive-functional issues **only (not hearing/vision/mobility)**

NPI-Q

CORRECTED INSTRUCTIONS: Please answer the following questions based on changes that have occurred since the patient first began to experience memory (i.e., cognitive) problems. **Select 1=Yes only if the symptom(s) has been present in the last month. Otherwise, select 0=No.**

For each item marked **1=Yes**, rate the SEVERITY of the symptom (how it affects the patient):

1=**Mild** (noticeable, but not a significant change) 2=**Moderate** (significant, but not a dramatic change) 3=**Severe** (very marked or prominent; a dramatic change)

					SEVERITY				
		Yes	No	Unknown	Mild	Mod	Severe	Unknown	
1. NPI CO-PARTICIPANT: <input type="checkbox"/> 1 Spouse <input type="checkbox"/> 2 Child <input type="checkbox"/> 3 Other (SPECIFY): _____									
2. Delusions — Does the patient have false beliefs, such as thinking that others are stealing from him/her or planning to harm him/her in some way?	2a.	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 9	2b.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
3. Hallucinations — Does the patient have hallucinations such as false visions or voices? Does he or she seem to hear or see things that are not present?	3a.	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 9	3b.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
4. Agitation/aggression — Is the patient resistive to help from others at times, or hard to handle?	4a.	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 9	4b.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9
5. Depression/dysphoria — Does the patient seem sad or say that he/she is depressed?	5a.	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 9	5b.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 9

*Focus is on CHANGES that have occurred over the last month

QDRS-Proxy

QUICK DEMENTIA RATING SYSTEM (QDRS)

1. The following descriptions characterize changes in the patient's cognitive and functional abilities. You are asked to compare the patient now to how they used to be – the key feature is **change**.
2. Check **one answer** for each category that best fits the study participant.

NOTE - not all descriptions need to present to choose an answer.

1. MEMORY AND RECALL	
<input type="checkbox"/> ₀	No obvious memory loss or slight inconsistent forgetfulness that does not interfere with everyday function
<input type="checkbox"/> _{0.5}	Consistent mild forgetfulness or partial recollection of events that may interfere with performing everyday activities; repeats questions/statements, misplaces items, forgets appointments
<input type="checkbox"/> ₁	Mild to moderate memory loss; more noticeable for recent events; interferes with performing everyday activities
<input type="checkbox"/> ₂	Moderate to severe memory loss; only highly learned information remembered; new information rapidly forgotten
<input type="checkbox"/> ₃	Severe memory loss, almost impossible to recall new information; long-term memory may be affected

*Administered similar to ppt QDRS in Module C

Questions?

Contact information:

Ashley Morgan armorgan@wakehealth.edu
Bonnie Sachs, PhD bsachs@wakehealth.edu
Jim Porter, PhD porter@umn.edu
Clara Li, PhD clara.li@mssm.edu